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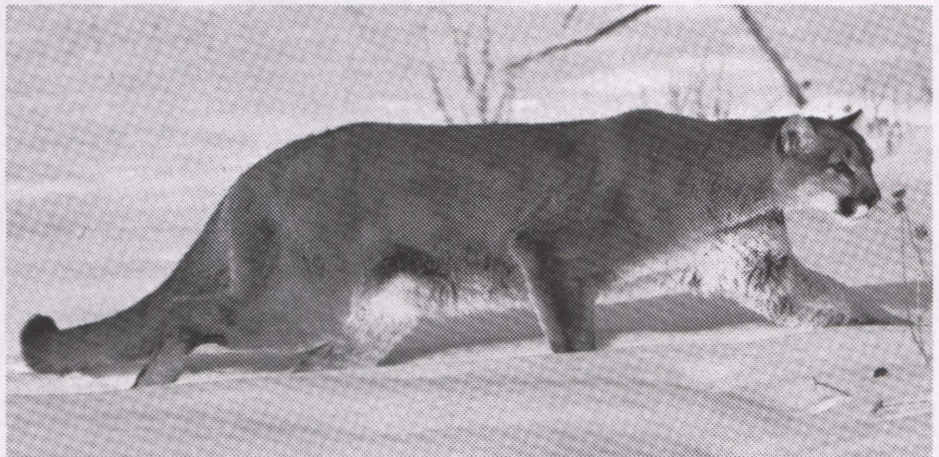
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THE EASTERN PUMA: EVIDENCE CONTINUES TO BUILD



The puma, *Felis concolor* (also known as mountain lion, cougar, and panther). This photo shows a Western puma, as there are no known authentic photos of the Eastern subspecies, *Felis concolor couguar*. However, reported sightings throughout the East, from New Brunswick to the Carolinas, indicate that the subspecies did not become extinct at the turn of the century, as most authorities believe. (© Alan Carey, 1986; from America's Great Cats, by Gary Turbak.)

Sightings of large puma-like felids continue to be reported by eyewitnesses throughout the Eastern U.S.A. and Canada, despite such cats being thought extinct there for a century. A new report, from Maine, is of particular interest because it involves multiple sightings of long duration. Also, the viewing conditions were excellent, and the witness, Fire Warden Hubert Graham, is considered competent and reliable.

Graham, a life-long hunter, now 70, claims that on April 24, 1989, he had a clear bird's-eye view of a live puma when a juvenile estimated to weigh 40lbs walked out of the woods and sprawled itself on a clearing right below Graham's 100-foot-high fire-watch tower on Blue Hill Mountain, south of Bangor. Unaware of the human watching from above, the puma reportedly sunned itself for 20 minutes, merely perking its ears when Graham whistled down at it. Graham described the puma as fairly young, of a "tawny orangey color, with a little white on the belly."

According to Graham, two pumas appeared on four separate days. The other, larger cat was estimated to weigh 125lb. He believes that it was the mother, although he never saw both cats together.

After four sightings, Graham took his camera to the tower, but--typical for cryptozoology--he failed to get photographic evidence. "Something must have spooked them. I took a running shot, but the film came back with nothing on it." In a telephone interview with the Maine Sunday Telegram--right from the watch-tower--Graham stated: "They were beautiful animals, and definitely cougars...There is absolutely no doubt whatsoever about what I saw."

Wildlife officials in most Eastern states have usually attributed puma reports to mistaken identity: brief glimpses of ordinary animals by inexperienced observers. That explanation, however, is difficult to advance in this case. George Milligan, Graham's

supervisor, described him as a "reliable and responsible employee," adding: "I have no reason to dispute his report."

George Matula, director of wildlife research at Maine's Department of Inland Fisheries and Wildlife, also conceded to the Sunday Telegram that "there is a lot of strong circumstantial evidence...Too many people who have spent a lot of time in the woods and who have a lot of knowledge about wildlife have reported seeing lions... Unfortunately, we don't have proof positive, such as a good photograph." He also cautioned that "we would expect conclusive evidence would have been found by now. I need proof before I will believe mountain lions exist."

Maine, of course, is simply a microcosm of what is happening throughout the East. In fact, puma sighting reports come in yearly, if not monthly, from practically every state east of the Mississippi River. The only Eastern state which is known to have a puma population--at least one that is recognized by the U.S. Fish and Wildlife Service--is Florida, home to a desperately small population of "panthers."

The puma is a large, muscular cat, with males sometimes weighing over 200lbs. and reaching a length of 7 or 8 feet from nose to tail-tip. Exceptional males have sometimes reached 9 or 10 feet. The species goes by numerous names. Scientifically, it is known as Felis concolor, although some zoologists prefer, with good reason, to place it within its own genus, Puma, separating it from the small wildcats of the genus Felis. It has several regional English names. The original Eastern name was "panther," which is sometimes still used. But this name can cause confusion, as the popular "black panthers" in zoos are actually melanistic Asian leopards.

In the Rocky Mountain region it is usually called "mountain lion" (or sometimes just "lion") while further north, in Canada, it is often called "cougar," a name which has spread to the East. In the Southwest, it is known as "puma," a Peruvian Indian name which is used here, and which most zoologists hope will eventually be universally adopted. All these names refer to exactly the same species, although 35 different subspecies--geographical races--ranging all the way to southern South America have been described. A number of these subspecies, however, are based on very flimsy data, and some of them are not generally recognized by modern zoologists.

The "bible" of puma studies is the book The Puma: Mysterious American Cat (American Wildlife Institute, 1946), by Stanley P. Young and Edward A. Goldman, both of whom were wildlife biologists with the U.S. Fish and Wildlife Service. They covered many aspects of puma biology and behavior, as well as details on all the subspecies and their ranges. Relatively little more has been learned about pumas since their time, so the book is still considered the most comprehensive on the subject. (A recent work which summarizes most of what is known about pumas is Jim Bob Tinsley's book The Puma: Legendary Lion of the Americas, Texas Western Press/University of Texas at El Paso, 1987.)

Young and Goldman recognized 13 puma subspecies in North America. Two of these are Eastern races. In the North, Felis concolor cougar once ranged from New Brunswick south to South Carolina, and west to Illinois; it is now considered extinct--and was so listed by Young and Goldman in 1946. In the South, Felis concolor coryi once ranged from Georgia and Florida west to Arkansas and Louisiana. Except for the several dozen "panthers" known to be in the southern swamps of

Florida, it is now also considered extinct.

Thus, although puma reports from the South are usually associated with the Eastern subspecies, such cats, if found to exist, would, in reality, most likely represent the Southern subspecies; that is, they would be identical to the known Florida "panthers." Technically, therefore, it is more correct to speak of the possible survival of "Eastern pumas" only when dealing with reports as far south as the Carolinas, and to speak of "Southern pumas" when dealing with reports from Georgia west to Arkansas and Louisiana.

The history of human/puma relations--as human relations with many other wildlife species have been--is a sad one. Early settlers blamed "panthers" for livestock losses, and the cats were persecuted mercilessly. Several states established official bounties, and "ring hunts" became popular. The largest ring hunt occurred in Pennsylvania in 1760, when 200 hunters formed a circle 30 miles in diameter and then moved to the center, killing anything that moved. The carnage included 114 "mountain cats," 112 foxes, 111 buffaloes, 109 wolves, 98 deer, 18 bears, 41 pumas, and about 500 "smaller animals."

Such ring hunts were designed to rid the countryside of "vermin." What they did do is rid the land of food for both the puma and the Indian. While the Indian could fight a losing battle with the European settler (in fact, Black Jack Schwartz, the organizer of the above ring hunt, received a rather unpleasant death at the hands of Indians in retribution for the destruction of their ancestral hunting lands), the puma had no way to fight back.

Gradually, the settlers killed all the deer, and by the late 19th century they were all but extinct throughout most of

the East. It seems never to have occurred to the settlers that, by depleting the puma's principal prey, it would force it to take livestock. With a decreasing food supply, and the continued brutal persecution of humans, puma populations fell dramatically. By the end of the 19th century, the Eastern puma was considered extinct, the last "confirmed" kills varying from state to state.

However, deer were protected on a large preserve established by George Vanderbilt in North Carolina, and they also persisted in what is now the Great Smoky Mountains National Park, where hunting was banned in 1934. The 1914 Weeks Act had resulted in much land being acquired for the protected National Forests, and by the 1930's and 1940's deer began to make a comeback. The important question is: did some puma populations survive the critical period between the fall and rise of the deer populations? If they did, there is no serious ecological reason why they could not have survived to the present.

Robert L. Downing, a wildlife biologist who has studied the matter in depth, thinks this may be the case. Although no specimens are available for study, Downing's investigations have determined that as many as 20 pumas may have been killed in several Southern states in the past 50-80 years. "If cougars survived the critical period," Downing wrote in Cryptozoology in 1984, "they may have even experienced an increase in number in the more inaccessible areas as deer herds became larger and more widespread."

The first wildlife biologist to seriously address the question of the possible survival of Eastern pumas was a Canadian, the late Bruce S. Wright, director of the Northeastern Wildlife Station of the University of New Brunswick. Wright, who had had field experience with African lions--even surviving on lion

kills for a while--became interested in Eastern pumas when he first heard of such reports in 1938 while working for the Dominion Forest Service. He decided to look into the matter, but his investigations were rudely interrupted by World War II. He served in the Royal Canadian Navy, eventually running the Sea Reconnaissance Unit of the Combined Operations Command, under Admiral Mountbatten (essentially, he recruited, trained, and led commando frogmen on special missions against Japanese forces).

Wright survived the war--and graduate studies--and continued his search for evidence of Eastern pumas, which he preferred to call "panthers." His 30 years of fieldwork resulted in two detailed books, The Ghost of North America (Vantage Press, 1959) and The Eastern Panther: A Question of Survival (Clarke, Irwin, 1972). These books, which have not been given the recognition they deserve--even by cryptozoologists--are brilliant attempts at using the cryptozoological method to gain valuable zoological information.

Personally investigating all the New Brunswick reports that he could, Wright found that there was a steady stream of eyewitness testimony going all the way back to the period of supposed extinction. He also exchanged information with investigators in other areas, namely Gerald T. Bue and Milton H. Stenlund in Minnesota, John Spargo in Vermont, Helenette Silver in New Hampshire, Col. Henry W. Shoemaker in Pennsylvania, Ludwig K. Moorehead in New York, and Herbert Ravenel Sass in South Carolina. This produced a "big picture," which led him to conclude in 1959 that "the animal is still present... in almost every state from the Canadian border to Florida."

"The species had become so scarce," he wrote, "and the survivors so cautious and nocturnal, that they had escaped man's

notice almost entirely for many years. With the revival of the deer, they once again began to be noticed." However, the cat that survived, in Wright's scenario, was now behaviorally quite different. Whereas before the puma was practically the ruler of its domain, and had little fear of the relatively few and poorly armed Indians, it had now learnt to play a subservient role to the new humans, the Europeans, which were better armed--and ruthless. With reduced habitat and more of these newer humans about, the felid's behavior changed to one of a cryptic and withdrawn disposition. Its elusiveness, in fact, resulted in humans believing it had completely disappeared.

Wright placed great reliance on eyewitness testimony--provided he had carefully screened out the unreliable data--and, using it in combination with other information, such as sign, he was able to plot population ranges on maps, and actually reconstruct the geographical movements of individual pumas.



Bruce Wright with casts of puma tracks made in snow. Photo probably from the 1960's.

In this way, he determined the wanderings of a particular young puma in 1953, calling it "an example of how the movements of an animal can be traced by the method outlined here. Of course, all of this information was not available in the form given until some time after the event. Some reports will come in promptly; others may be heard of only by accident some time later. It is when all the information is in that the reports can be arranged in chronological order and the outline of what actually happened begins to take shape."

Wright's 1972 book gave an even more comprehensive picture of Eastern puma reports. Besides again tracing the wanderings of individual pumas, he tabulated the total number of reports he had either personally investigated or otherwise studied. These totaled 304 reports from eastern Canada (New Brunswick 255, Nova Scotia 26, and Quebec 23), and 44 scattered reports from the U.S.A., from Maine to Alabama (most American reports, of course, simply never came to his attention). One of these reports was filed by himself, for on September 28, 1966, Wright and his wife were driving west from Fredericton when, for 10 seconds and in broad daylight, they observed a large cat with a long tail leisurely crossing the road in front of them. It was unmistakably a puma.

Although Wright felt he had uncovered irrefutable proof of the Eastern puma's survival, he failed to significantly alter the negative attitudes of most state or federal wildlife officials. Today, his books are all but forgotten, but the investigation of puma reports has been continued by a new generation of investigators, such as wildlife biologist Helen J. McGinnis, who, between 1979 and 1981, undertook a study of Pennsylvania reports.

McGinnis was able to document 292 reports from the previous

100 years, and she concluded that a small population of the cats had probably survived ("On the Trail of the Pennsylvania Cougar," Pennsylvania Game News, Feb, 1982). More recently, Curt Sutherly--like McGinnis, an ISC member--reviewed current Pennsylvania reports, including "black panther" reports. He concluded, despite a dismissive attitude by wildlife officials, that "some of these accounts are both legitimate and accurate" ("Has the Mountain Lion Returned to Penn's Wood's?," Pennsylvania Fish and Game, Feb & March, 1989).

In 1973, the U.S. Fish and Wildlife Service finally added the Eastern subspecies to the Endangered Species List, presumably granting it a protected status. However, as it is presumed extinct, no conservation measures have ever been instituted at either the federal or state level. With limited funds, wildlife agencies are hesitant to expend resources --and possibly cause economic disruptions--over an animal which probably no longer exists.

As a result of this policy, several conservation groups threatened litigation against the U.S. Forest Service in 1977 for timber harvesting in the Nantahala National Forest, in western North Carolina, where pumas had been reported. The Forest Service and the Fish and Wildlife Service then jointly sponsored a study to determine if the Eastern puma survives, which was undertaken by wildlife biologist Robert L. Downing, based at Clemson University in South Carolina. The results of this study were later published ("The Search for Cougars in the Eastern United States," Cryptozoology, Vol. 3, 1984; this journal issue is still available from the ISC Secretariat for \$18.)

In his Cryptozoology article, Downing cited a total of 89 reported puma kills east of the Rocky Mountains in this century,

28 of which are from the 1970's and 1980's. Many of the reports are unreliable. Some are known to have been misidentifications or hoaxes. Even so, despite the fact that no recent specimens have been preserved for scientific study, at least 20 cases are thought to be authentic. The number of reported sightings, of course, must be much higher. Unfortunately, no organization has kept track of all state-by-state sighting reports through the decades, and most such reports, if they receive press attention at all, usually do not get beyond the town or regional newspaper.

During his study, Downing established a network of collaborators, and he personally investigated many cases involving reliable witnesses. However, in no instance could he find definite evidence of pumas existing at that time. He was shown over 60 non-sighting related tracks (or track photos or casts), but almost all were identifiable as those of other animals, or were too indistinct to properly evaluate. Four photographed tracks "look somewhat like cougar tracks." In the end, all he was really left with were eyewitness sightings.

After several years of intensive effort, Downing reluctantly concluded that "the animals, if they exist, must be rare, elusive, difficult to track, and do not maintain breeding territories." He stated that, despite his efforts, he had been "unable to positively confirm that there are self-sustaining populations of cougars in the Eastern United States north of Florida." He did qualify that by stating: "I must conclude...that the animal has existed in small numbers in several areas at least within the last ten years [as of 1984]. I do not know if it still exists at the present time, although reports continue to come in."

Without a definitive answer, however, the U.S. Fish and Wildlife Service and state wildlife

agencies have continued to avoid spending resources on protecting an animal which they think is probably already extinct, and hunting in puma-suspected public lands will probably not be restricted until it is demonstrated that breeding populations are present.

It is probable that no number of eyewitness reports or photos would be considered conclusive. Only specimens--preferably including cubs or juveniles to demonstrate the existence of a breeding population--would be convincing. However, if the Eastern puma has learned to avoid humans to the point where no specimens are forthcoming--not even road kills--then its official status could remain in limbo for a very long time to come.

Indeed, it is even possible that, despite being included on the Endangered Species List, the Eastern puma subspecies (assuming it still survives) could, because of its elusive nature, eventually become extinct without official recognition--and thus protection--ever having been bestowed upon it by the federal government or the states. A more likely scenario, however, is that, if it has survived without human help in the past, it will probably continue to do so in the future regardless of the beliefs, policies, or actions of official agencies.

One of the difficulties in proving its survival is establishing that the animal involved is, in fact, the Eastern subspecies, F. c. cougar. Two other possibilities muddy the waters. First, it is possible that a Western subspecies may have extended its range to the East, and be responsible for the reports of both the Eastern and Southern pumas. Alternatively, the animals could merely be escaped or released pets, which almost certainly would be of Western (or even Central or South American) subspecies.

Complicating the picture further, according to Downing, is the possibility that all three of these scenarios could be happening at the same time. Thus, any kill or live capture in the East would have to be submitted to the most rigorous scientific scrutiny to determine its affinities, and it is probable that official agencies would only be interested in implementing conservation measures if it is determined that a breeding population of the native Eastern or Southern subspecies is involved. How official agencies would regard a breeding population that was subsequently determined to have been introduced from the West, or even from Latin America, is difficult to predict. Potentially, such pumas could be regarded as "alien animals"--and be treated as such.

In early 1989, the Fish and Wildlife Service announced that it was considering listing all free-living pumas in the East as protected--even the escaped pets; the Service has the authority to invoke this under the Similarity of Appearance provisions of the Endangered Species Act. The Service stated that some pumas had been deliberately killed in the East, and admitted that, while most were of released or escaped Western subspecies, "others may have been members of Endangered subspecies: the Florida panther (F. c. coryi) and the Eastern cougar (F. c. cougar)."

The reasoning behind this move is that, as it is very difficult to prove the subspecies involved in a particular prosecution of an illegal kill, the problem is overcome by listing all pumas as protected in the East, regardless of their origin. If this proposal is implemented, it would be a bold, positive move by the Fish and Wildlife Service.

Then there is the question of "black panthers." Many of the Eastern and Southern reports

describe very dark or even jet-black individuals. Wright himself investigated numerous such reports, and was at first unsure of how to deal with them. Although a mutant black phase of the puma has been reported from Central and South America, there is not a single museum skin of a melanistic puma. In the West, where the species is relatively common, there are no consistent reports of black specimens. Thus, it is only in areas where the species is not supposed to survive at all--the East and South--that sightings of black individuals are reported.

Wright proposed that melanism (an overabundance of melanin pigment resulting in black hair in mammals) may have evolved genetically in isolated Eastern populations, a hypothesis that has not gained zoological favor--or even attention. Alternatively, he proposed that some real black panthers (i.e. melanistic Asian leopards) may have escaped and bred in the wild--an unlikely scenario.

In his 1972 book, Wright explained how, in his evaluation of the black cat reports, he had eliminated all night sightings, and conducted experiments with a freshly killed puma on Vancouver Island to determine if a wet skin would produce a dark appearance. It did not. In the end, he accepted the existence of black pumas in the East after collecting 20 reliable reports between 1951 and 1970. In all 20 cases, the animals were reported to be dry, and were seen by reliable witnesses at close range in daylight.

He presented the same conclusion at a professional conference in 1971, stating that "I have no alternative but to accept the word of the eyewitness that there are black specimens of Felis concolor in northeastern North America and that they are not particularly rare..." ("The Cougar in New Brunswick," Proceedings of a Symposium on the Native Cats of

North America. Their Status and Management, U.S. Fish and Wildlife Service, 1971). Since that time, many more "black panther" reports have come in from throughout the East and South.

Since the completion of his official project in 1983, and his subsequent retirement from the Fish and Wildlife Service, Downing has continued to monitor the situation through his established contacts. (He presented an update of his efforts at the ISC's 7th Annual Membership Meeting held at the University of Maryland in May, 1988; see Newsletter, Summer, 1988.) Also in 1983, John and Linda Lutz, of Baltimore, founded their private Eastern Puma Research Network, and have attempted to compile as many reports as possible from all areas, which they summarize three times a year in a newsletter, the Eastern Puma Network News.

It would not be possible to list here--much less describe--the hundreds of sightings compiled by the Lutzes in the past 7 years. The following breakdown of the 615 reports received since 1983, abstracted from the Lutzes' newsletters, gives an idea of the magnitude of the Eastern puma problem (reports of black cats in parentheses)

1983	-	49? (6 months only)
1984	-	51 (15 black)
1985	-	91 (24 black)
1986	-	97 (22 black)
1987	-	106 (20 black)
1988	-	117 (43 black)
1989	-	104 (32 black)

Geographically, the 615 reports have come from 23 Eastern and Southern states (the Lutzes do not log Canadian reports). The following breakdown also indicates the number of reported black specimens, which constitute 37 percent of all reports:

Alabama	-	4 (1 black)
Delaware	-	2
Florida*	-	12 (4 black)
Georgia	-	4

Illinois	-	10 (4 black)
Indiana	-	3 (1 black)
Kentucky	-	10 (5 black)
Maine	-	16 (5 black)
Maryland	-	135 (40 black)
Massachu.	-	2
Michigan	-	12 (6 black)
Mississip.	-	2
New Hamp.	-	6
New Jers.	-	5 (1 black)
New York	-	42 (13 black)
North Car.	-	4
Ohio	-	7 (2 black)
Pennsylv.	-	131 (37 black)
Tennessee	-	3
Vermont	-	5
Virginia	-	24 (6 black)
West Virg.	-	113 (29 black)
Wisconsin	-	23 (12 black)

(*reports north of known Florida "panther" habitat)

Many local communities are unaware that similar reports are made in other parts of their state, or in other states, often believing that the local "mystery" cat or cats are unique to their area. Such sightings, however, seem to be part of a much larger picture. Furthermore, the Lutzes believe that only about a tenth of all sightings are reported beyond family and friends. Thus, as many as 1,000 or more actual sightings of Eastern and Southern pumas may be made every year, and if the above percentages hold true, about 370 of these sightings involve black individuals. Considering that not a single clear and indisputable photo of a living Eastern or Southern puma (except for the "known" Florida panthers) has every been obtained, and that zoology does not possess a single skin of a black puma from anywhere, this is a mind-boggling situation.

Undoubtedly, many of the reports compiled by the Lutzes have resulted from misidentifications of ordinary animals, as wildlife agencies tend to stress, sometimes arrogantly. However, it is difficult to attribute such explanations to all--perhaps even most--of the reports, particularly to those involving daylight sightings

made at fairly close range by experienced observers--including, in some cases, zoologists and wildlife biologists.

Of the 615 Lutz reports, 44 percent involved multiple witnesses, and 27 percent involved hunters. Also of interest is the fact that, since 1986, there has been an increase in the number of reports of cubs observed with adults: a total of 32 cubs have been reported in 9 states--Florida, Maine, Maryland, New York, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin.

Some Canadians are also keeping track of their suspected Eastern pumas. New Brunswick and Nova Scotia combined have had over 200 reports filed with the Canadian Wildlife Service since 1977, 61 reports in 1988 alone. Quebec has also had a steady stream of reports, even if these have been less publicized. In March and April, 1959, however, Montreal itself was in the grip of a genuine "panther panic"--now long forgotten--after several pumas were reported near the city, and the press milked the sensation for all it was worth.

In Ontario, Helen Gerson, of the Wildlife Branch of the province's Ministry of Natural Resources, recently published a paper proposing that pumas are, in fact, residents of that province (Cougar, Felis concolor, Sightings in Ontario, The Canadian Field-Naturalist, Vol. 102[3]:419-24, 1988). Gerson studied over 318 puma reports received by her office between 1935 and 1983--28 in the 1950's, 44 in the 1960's, 138 in the 1970's, and as many as 103 between 1980 and 1983. Of these, 189 reports were logged as "probable," and 129 as "possible." She admitted, however, that many reports from earlier years had not been recorded.

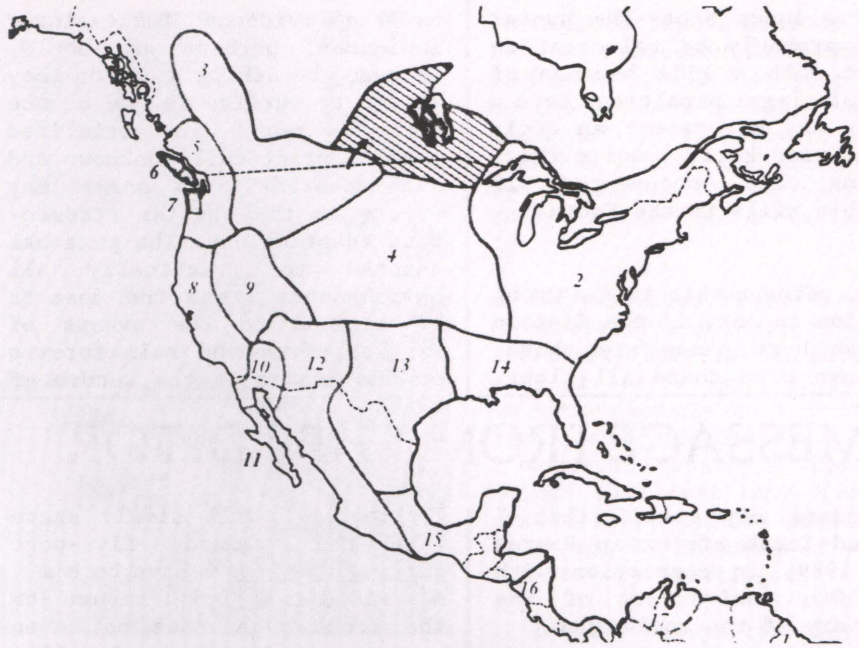
While pointing out that big cat biologists Fred G. VanDyke and Rainer H. Brocke are criti-

cal of relying on eyewitness reports to determine puma presence (see their Comment "Eastern Cougars: The Verifiability of the Presence of Isolated Individuals Versus Populations," in *Cryptozoology*, Vol. 4, 1985), Gerson stated that the "compilation of sighting reports is a necessary step in the investigation of the cougar in Ontario." Whether she realizes it or not, this is a tribute to Bruce Wright--who started doing precisely that in New Brunswick 50 years before--as well as to the cryptozoological method.

Gerson found that 137 of the Ontario reports mentioned color, ranging from "grey" to "gold," but only 9 percent were "black," which is a much lower percentage than that found in the American Lutz reports. There were 12 reports involving more than one puma, and seven reports included mention of cubs. Using a number of ecological and behavioral criteria, she then identified six areas of southern Ontario which are likely to yield puma sign if systematic searches were made.

As in the southern U.S.A., where there would be some uncertainty at first over whether puma populations, if verified, belonged to the Eastern or Southern subspecies, the origin of the Ontario pumas is not altogether clear. It has been proposed that a Western subspecies, *F. c. missoulensis*, has recently extended its range east into North Dakota and Minnesota, and north into Manitoba and Ontario (see map). This implies that the Ontario pumas are not Eastern "survivors" at all.

An alternative and perhaps more likely hypothesis is that the Eastern subspecies--which was recognized as once being present in southern Ontario by Young and Goldman--never really left, and has remained as a ghost of the forest, unrecognized by zoologists and wildlife agencies. The Ontario reports



The original North American range of the puma, *Felis concolor*. The original ranges of the Eastern subspecies, *F. c. cougar*, now thought extinct, and the Southern subspecies, *F. c. coryi*, also thought extinct except for a small known population in southern Florida, are indicated by "2" and "14" respectively. A Western subspecies, *F. c. missoulensis*, is believed to have recently extended its range northeastwards (see arrow), and it is uncertain if Ontario reports are of this subspecies or the Eastern subspecies. (Rafael Palacios, 1986; from *The Big Cats: The Paintings of Guy Coheleach*.)

going back to the 1930's indicate this.

Some reliable evidence also comes from naturalist R.D. Lawrence, who once spent nearly a year observing a British Columbia puma in its natural habitat, as described in his book *The Ghost Walker* (Holt, Rinehart and Winston, 1983). In a recent article ("Is the Eastern Cougar Making a Comeback?," *Canadian Geographic*, Aug-Sep, 1989), Lawrence described how he first found puma tracks in Ontario in 1954, but, being a recent immigrant from England, he was unaware that pumas were not supposed to be there. His report to a wildlife official was dismissed out of hand. Seven years later, he found more tracks, followed by a sighting at 250 feet. In 1969 he had his second sighting.

There finally comes a time, in most areas of cryptozoology, when one must put aside all the sighting reports and address the most crucial question of all.

In this case, it is the following: if there are hundreds of puma reports being made every year, from the East Coast to the Midwest, and from New England to the South, why has there not been a single specimen obtained which, upon examination, is found not only to be a wild animal--not a released or escaped pet--but also a representative of the native Eastern or Southern subspecies? More specifically, a skeptic will ask, and with good reason: "Surely by now one would have been hit by a truck or shot by a hunter?"

There are several ways in which this question could be answered. First, the easiest way for a hunter to shoot a puma is to first "tree" it with specially trained dogs. While this is still done in the West, it would be illegal in the East, and, without assistance from dogs, the rare and secretive Eastern puma may be very hard for a hunter to get even if he tried. Even with a chance encounter

--and a lucky shot--the hunter would probably be reluctant to report such a kill because of possible legal penalties. Even a driver may not report an accidental road kill. Despite this, Downing has documented 20 probable kills in the South.

So, perhaps this is the wrong question to ask. If the Eastern and Southern pumas are there, and have been there all along,

as the evidence increasingly indicates, perhaps we should, instead, be asking: "How do they manage to survive in one of the world's most industrialized regions practically unknown and even doubted?" The answer may relate to the species' tremendous adaptability. The puma has adapted to practically all environments, from the deserts of Arizona to the swamps of Florida, from the rain forests of the Amazon to the tundra of

Patagonia. Perhaps its behavioral repertoire is equally adaptable and "plastic."

Whatever the truth turns out to be, we will again have learnt a lesson from Nature. If the Eastern puma really has gone the way of the dodo and the passenger pigeon, we should ponder over how and why it happened. If it is still with us, we should ponder over how it possibly could have survived. □

MESSAGE FROM THE EDITOR

Readers may recall that I visited South Africa in February, 1989, in connection with the 50th anniversary of the discovery of the coelacanth.

While in that country, I was also able to visit ISC Board member Phillip V. Tobias, at the University of the Witwatersrand, in Johannesburg. I had met Professor Tobias once before, when Justin Wilkinson and I had had dinner with him in Phoenix, Arizona, in 1983. Even so, I did not expect the warm and open-armed reception I received from one of the Society's founders.

Who is Phil Tobias, and why am I writing about him? Dr. Tobias is, by profession, a human anatomist and anthropologist. He is a disciple of the renowned Raymond Dart (the discoverer of Australopithecus in 1924)--and, in fact, has Dart's old job. He is considered one of the world's leading paleoanthropologists, and is sometimes mentioned as probably South Africa's most prominent scientist.

In 1964, Tobias, together with Louis Leakey and John Napier--names familiar to all Newsletter readers, I am sure--described in Nature the newly-found fossil hominid Homo habilis. He has published so many other papers, monographs, and books that I cannot even begin to mention them. His international awards, honors, and recognitions are also

lengthy. I will simply state that the crammed, five-page curriculum vitae I have on him--described as a "brief resume" on the front page--does not even have room to list his scientific papers.

In terms of titles, I can add that he has been chairman of the Anatomy Department since 1959, becoming Dean of the entire College of Medicine in 1980 (a job he recently stepped down from) and carrying out the relocation of the enormous facility to new buildings in Parktown. Also, as head of the University's inter-departmental Paleoanthropology Research Unit, he is responsible for directing the continuing excavation program at the famous Sterkfontein Cave, the site of so many hominid fossil finds.

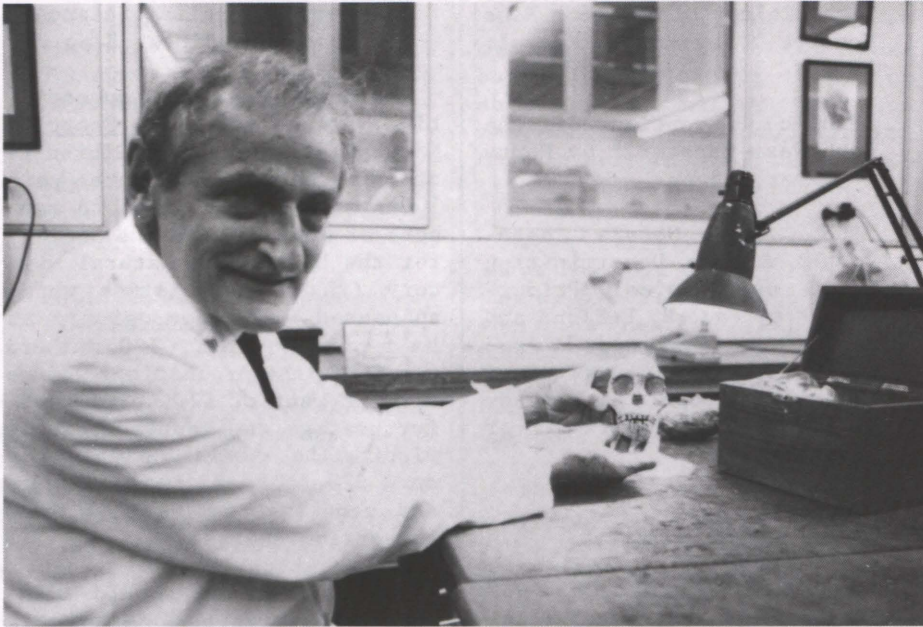
It goes without saying that Dr. Tobias is also on many research and editorial boards and committees, and is in great demand as a speaker all over the world. And, as if all this were not enough, he also serves on the Board of Directors of the International Society of Cryptozoology, an obscure group of people interested in animals that may not even exist! Why, in heaven's name, would he be willing to spend his precious time on that?

I once asked him this very question, in Phoenix. His answer was quite simple. Cryptozoology, he stated, poses some interest-

ing scientific, even intellectual questions which should not be ignored by society or by science, and if this organization was going about the problem in the right way, he was more than happy, and even proud, to lend his name and support--despite the unavoidable raised eyebrows from some of his more conservative colleagues.

It was therefore in character for him to put aside his many responsibilities and spend the best part of an entire day with me, showing me around his department and talking cryptozoology. The Anatomy Department may well be the largest in the world, taking up an entire floor of the vast hospital building. It engages about 40 faculty members and has about 350 students. (It should also be mentioned that both the Department and the University as a whole--which has about 20,000 students--does not discriminate on the basis of color or race. The University's official publications condemn state apartheid, and for over 40 years Dr. Tobias himself has played a leading role in combating apartheid in South African universities.)

I could tell that it was with great pride that he showed me the Department's museum, used mainly for graduate instruction. Practically all the exhibits are made in-house using innovative ideas and special materials. I saw a model of a human hand which could turn at the press of a button, with veins and tendons clearly colorized so that stu-



Phillip Tobias and Taung baby. "... stamps, Africana, people, and principles."

dents can better absorb the principles involved. I saw many human body parts and sections treated thus; scientifically, tastefully, and above all, interestingly--which is of prime importance in instruction.

However, the final and most

dramatic highlight of my visit was when Dr. Tobias led me to one of the fossil collection rooms, took a wooden box out of a safe, and withdrew the original...Taung baby. This was the first Australopithecine ever discovered, the fossilized skull of an infant which had arrived

on Raymond Dart's desk 65 years before. Professor Dart, who was in his 90's, had died just a few months prior to my visit. He had led a full life. However, having been his student and knowing him for almost half a century, Dr. Tobias still missed him terribly.

He explained to me a number of the skull's anatomical peculiarities, but the climax was when he let me hold it myself. It fitted snugly into my cupped hands, and it stared up at me as I wondered about all the many things that must have happened around it as it lay in fossilized form for millions of years. I felt very privileged.

I shall always remember that visit to the University of the Witwatersrand, and to Phil Tobias, the man who, when all is said and done, lists his avocational interests in his resume as: "classical music, old and new books, stamps, Africana, people, and principles."

J. Richard Greenwell
Editor

NESSIE SYMPOSIUM PROCEEDINGS PUBLISHED

On July 25-26, 1987, the Society held its Sixth Annual Membership Meeting at the Royal Museum of Scotland, in Edinburgh. The Meeting, which was sponsored jointly by the Society for the History of Natural History, based at the British Museum (Natural History), was dedicated to two symposia, one on cryptozoological cats, and the other on the Loch Ness Monster or Nessie (see Newsletter, Winter, 1987).

The Nessie symposium, which included as speakers the field's principal investigators and authorities, was the first scientific forum ever held publicly on the subject. This resulted in a proposal from the journal The Scottish Naturalist to publish the proceedings in a special 1988 issue to commemorate its

100th anniversary (the journal actually commenced publication in 1871, but did not appear for 17 years, primarily during World War II and between 1964 and 1972). The ISC Board of Directors accepted the proposal, particularly as no cost would ensue to the Society.

The proceedings have now appeared and are available to ISC members at a special discounted price from the publisher, the Scottish Natural History Library. (Although the journal bears the 1988 date, a printing problem delayed the special issue's appearance until early 1989--something ISC members are already accustomed to!)

This historical and unprecendented issue of The Scottish Naturalist has been printed in

three parts, totaling 214 pages. Part 1 contains 33 pages, including the centennial editorial and two papers not related to the Nessie problem ("Diet Composition and Stomach Fullness in Three-spined Sticklebacks from Three Scottish Populations," by A.A. Ukegu and F.A. Huntingford; and "'Light on Obscure Oceanographical Problems': An Historical Review of Studies of the Physics of Loch Ness," by S.A. Thorpe).

Parts 2 and 3 contain the Nessie proceedings, edited by Jack A. Gibson, who runs the Scottish Natural History Library and edits The Scottish Naturalist, and David Heppell, the Symposium chairman and Curator of Mollusca at the Royal Museum of Scotland, which hosted the meeting. The proceedings contain

papers based on the presentations made at the symposium itself, in some cases greatly edited and/or expanded. There have also been two title changes.

Although seven Symposium presentations were made, the proceedings only contain six, as Tim Dinsdale, the last speaker--and the loch's most ardent investigator--died before he was able to prepare a written version (see Newsletter, Spring, 1988). Instead, a fitting tribute to him by his old friend Richard Fitter is included at the end of the proceedings.

Part II contains:

"The Loch Ness Monster: St. Columba to the Loch Ness Investigation Bureau," by Richard Fitter, 12 pp. (original Symposium title: "The History of the Loch Ness Monster").

"The Biology of the Loch Ness Monster," by Roy P. Mackal, 14 pp.

"Public Perception of the Loch Ness Monster," by Henry H. Bauer, 25 pp.

"The Wilson Nessie Photograph: A Size Determination Based on Physical Principles," by Paul H. LeBlond and Michael J. Collins, 14 pp. (slightly revised version of research report already published in Vol. 6 of Cryptozoology).

Part III contains:

"Loch Ness Habitats Observed by Sonar and Underwater Television," by Adrian J. Shine and David S. Martin, 189 pp. (original title: "Recent Fieldwork by the Loch Ness and Morar Project").

"A Review of Research Contributions at Loch Ness by the

Academy of Applied Science," by Robert H. Rines, 8 pp.

Although the normal subscription price for The Scottish Naturalist is L20, Dr. Gibson is offering this special three-part 100th Anniversary issue to members of both ISC and the Society for the History of Natural History (the two societies which sponsored the Symposium) at half-price. Thus, ISC members may order the proceedings volume with payment of £10, plus £1.50 for postage and handling. Those wishing to pay in US\$ should send \$20 (this includes postage and handling, as well as bank conversion charges).

Those ordering should identify themselves as ISC members. All checks or money orders should be made payable to The Scottish Naturalist, and should be mailed to: Dr. Jack Gibson, Scottish Natural History Library, Foremount House, Kilbarchan, Renfrewshire, Scotland, PA10 2EZ, U.K. □

GUILDFORD MEETING

Plans are proceeding for the Society's Ninth Annual Membership Meeting, to be held in conjunction with Britain's Folklore Society next July 19-22 in Guildford, Surrey, England. The joint meeting, to be hosted by the University of Surrey, will take the form of a conference titled: "Fabulous Beasts: Fact and Folklore."

Guildford, which can be reached in about 40 minutes by train from London's Waterloo Station, is the capital city of Surrey, a county in southern England known for its picturesque country scenery.

To date, 10 abstract forms have been received from ISC members, as follows:

* Aaron M. Bauer & Anthony P. Russell, U.S.A. & Canada, "The Connection Between

Cryptozoology and Folklore: Case Histories from the Maori and Basotho Peoples."

* John Colarusso, Canada, "Linguistics and Cryptozoology."

* Jean-Paul Debenat, France, "Fabulous Beasts of our Times."

* Ed Fusch, U.S.A., "Large Bipedal Hominids as Reported by Spokane and Colville Indians."

* Michael Heaney, U.K., "Soviet Research Into the Abominable Snowman and the Mythology of Cryptozoology."

* David Heppell & Peter Dance, U.K., "The Horned Hare: Fact, Fiction, or Philosophy?"

* David Heppell, U.K., "Was Satan a Giant Squid? -- The Pedigree of the Basilisk"

* Bernard Heuvelmans, France, "The Metamorphosis of Unknown Animals into Fabulous Beasts, and of Fabulous Beasts into Known Animals."

* Adrienne Mayor, U.S.A., "The Origin of the Griffin."

* Jan-Ojvind Swahn, Sweden, "The Great Lake Monster of Sweden Discussed by a Folklorist."

Folklore Society members have submitted the following abstracts:

* Jeremy Harte, Ewell, "Real Dragons."

* Caroline Oates, London, "Werewolves, Raw and Cooked: Taxonomy and Evolution of a Mythical Hybrid."

* Claire Russell, Reading, "The Dragon."

* W.M.S. Russell, Reading, "Greek and Roman Monsters."

* J.B. Smith, Bath, "Swallows, Amazons, and Basilisks: Thoughts on the Ancestry of Ransome's Nibthwaite 'Serpent.'"

* Isao Uemichi, Japan, "The Dragon and the Serpent in Japan."

* Phil Underwood, Camberley, "The Morris Beast."

The final program, including all speakers and papers, will appear in the next newsletter. Meanwhile, interested ISC members are urged to preregister for the conference as soon as possible.

Registration, including University accommodation and meals from the opening dinner on Thursday the 19th to the closing tea on Sunday the 22nd, is £116

(or, at the current rate of exchange, about \$195 for those paying in US\$). This is £1 (or about \$1.68) higher than the post-March 1 preregistration cost given in the last newsletter.

Some members have inquired about the cost of partial attendance, or, for British members who live nearby, the cost of non-accommodation attendance. The Folklore Society has sent the ISC Secretariat the following cost schedule.

For those not wishing accommodation, the cost of all sessions including coffee and tea is £7 per person per day (about \$12); the above plus lunch is £16.25 per day (about \$27); plus lunch and dinner: £24 per day (about \$40). For spouses who are not actually attending the sessions, the cost will be £99

(about \$166), which includes accommodation and all meals. If lunches are not required, £9.25 (about \$15.50) may be deducted for each lunch not taken, provided that this is arranged well in advance.

Payments and all arrangement inquiries should be directed to: Roy Vickery, The Folklore Society, 12 Eastwood St., London SW16 6PK, England. He may also be reached by telephone at (71)938-8897.

This will be the Society's first Membership Meeting in England, and it will provide European members with an opportunity to meet and get to know one another, as well as meet the members of the Folklore Society. The Secretariat encourages European members to attend at least part of the Meeting. American members will also be welcome! □

OBITUARIES

The Secretariat regrets to announce the death of three Society members.

James Clark, of Vancouver, British Columbia, Canada, died of a heart attack on September 3, 1989. Mr. Clark, who was only in his early 30's, had been working actively for a number of years in compiling bibliographic information on the cryptozoology of British Columbia, particularly that related to the province's many "monster" lakes. He was the husband of Barbara Clark, who in recent years reported to the Society a 1970's "close encounter" with Lake Okanagan's Ogopogo (see Newsletter, Spring, 1987).

With ISC Board member Paul LeBlond, Mr. Clark had founded the British Columbia Cryptozoology Club only 3 months prior to his untimely death. Our sympathies go to his wife Barbara.

F.P. Gaekwad, of Bombay, India, died in early 1989. Mr. Gaekwad, a specialist in big

cats, was head of the Indian branch of the World Wildlife Fund (now the World Wide Fund for Nature), and had a strong interest in cryptozoology. He had expressed a desire to become an ISC Benefactor, and was planning a visit to the Secretariat in Tucson when his death occurred. The chairman of Baroda Rayon Corporation, Mr. Gaekwad's complete title was: His Highness Lt. Col. Fatesingh Rao Pratapsingh Rao Gaekwad, the Maharaja of Baroda.

Warren L. Cook, an anthropologist and historian at Castleton State College, Vermont, suffered a fatal heart attack on December 6, 1989, while on a commercial airline flight. Dr. Cook had obtained doctorates at Yale University and San Marcos National University, in Peru. He was a specialist on Colonial Spanish history, and also studied supposed pre-Columbian European contacts with America. He believed that archaeological artifacts in Vermont demonstrated pre-Columbian Celtic influence.

Within cryptozoology, Dr. Cook accepted the existence of Sasquatch (Bigfoot) not only in the Pacific Northwest, but also in New England. He was criticized over the years for taking what many thought was a liberal view of the evidence. Dr. Cook was 64 when he died. □

CRYPTOLETTER

To the Editor:

I refer to the letter by Michael Playfair (Newsletter, Spring, 1988), in which he related his unsuccessful attempt to locate the 1934 film The Secret of the Loch.

I am pleased to inform you that the film in question is now available in video form through the Strange Bookshop, P.O. Box 2246, Rockville, Maryland 20852, U.S.A. The cost for the videotape is \$31.95 postpaid. Specify VHS or BETA.

Mark Chorvinsky
Editor, Strange Magazine
Rockville, Maryland, U.S.A.

WOOD'S ANIMAL FACTS

The largest of the bony fishes is the ocean sunfish, Mola mola, which is found in all tropical, subtropical, and temperate waters. Adult specimens average 6ft (1.8m) from the tip of the snout to the end of the tail fin, 8 ft (2.4m) between the dorsal and anal fins (vertical length), and weigh up to 1 tonne.

The largest ocean sunfish ever recorded was one accidentally struck by the S.S. Fiona shortly after 1 a.m. on September 18, 1908, off Bird Island, some 40 miles (64km) from Sydney, New South Wales, Australia ...The fish was later taken to a nearby wharf and put on a weigh-bridge, where it registered 4,927lb (2,235kg). It measured

10ft (3.1m) in length, and 14ft (4.3m) between the dorsal and anal fins...Another specimen exhibited in London in 1883 measured 8ft (2.4m) in length and 11ft (3.4m) between the dorsal and anal fins. It was caught in Swedish waters.

The longest bony fish in the world is the laterally compressed oarfish (Regalecus glesne), also called the King of the Herrings, which has a worldwide distribution. In 1885, a 25ft (7.6m)-long example weighing 600lb (272kg) was caught by fishermen off Pemaquid Point, Maine, U.S.A., and a second one measuring 21ft (6.4m) was washed ashore near Santa Ana, California, in June, 1901.

In December, 1947, the steamship Santa Clara decapitated another oarfish estimated to measure 45ft (13.7m) in length and 3ft (.91m) in diameter off the North Carolina coast while on a voyage from Baranquilla to New York. On July 18, 1963, a 50ft (15.2m) oarfish was seen swimming off Asbury Park, New Jersey, by a team of scientists from the Sandy Hook Marine Laboratory. At the time, they were aboard the 85ft (26m) research vessel Challenger, which gave them a yardstick for measuring the fish's length.

Abstracted from:

The Guinness Book of Animal Facts and Feats, by Gerald L. Wood, Guinness Superlatives, Enfield, U.K. (3rd ed.), 1982.

Honorary Members: Andre Capart (Belgium); Marjorie Courtenay-Latimer (South Africa); John Green (Canada); The Lord Hunt of Llanfair Waterdine (U.K.); Marie-Jeanne Koffmann (U.S.S.R.); Ingo Krumbiegel (Federal German Republic); Theodore Monod (France); Sir Peter Scott (U.K.); Robert Titmus (Canada).

Benefactors: G. A. Buder, III (U.S.A.); Robert C. Dorion (Guatemala); Michael T. Martin (U.S.A.); Gale J. Raymond (U.S.A.); Kurt Von Nieda (U.S.A.); Edward B. Winn (Switzerland); Bette and Joe Wolfskill (U.S.A.); Count F. C. Zedlitz (Argentina).

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